

ABSTRACT

Surface-modified titanium dioxide particles which have a surface chemically modified with a hydrophilic polymer, wherein a carboxyl group of the hydrophilic polymer and titanium dioxide are bound through an ester bonding; and a method for producing the surface-modified titanium dioxide fine particles, which comprises mixing a dispersion comprising titanium dioxide fine particles having a particle size of 2 to 200 nm and a solution of a water-soluble polymer, heating the resultant mixture to a temperature of 80 to 220°C, to thereby bind both the components through an ester bonding, and removing an unbound water-soluble polymer, to purify the resultant particles. The surface-modified titanium dioxide fine particles exhibit excellent dispersibility and stability in an aqueous solvent over a wide pH region including a neutral range.

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